

## RESEARCH ARTICLE

# Considering the Role of Physical Therapists Within the Treatment and Rehabilitation of Individuals With Eating Disorders: An International Survey of Expert Clinicians

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## Abstract

**Purpose.** Recent research has demonstrated that physical therapy may benefit the physical and mental health of people with eating disorders (EDs). Because this is a new and developing field, this study aimed to investigate the experience, practices and knowledge of international physical therapy experts to inform clinical practice, education and research. **Methods.** An international cross-sectional survey design was undertaken with experienced physical therapists within the field of EDs. Physical therapist responses were analysed with descriptive statistics and thematic analysis as appropriate. **Results.** Twenty-eight international physical therapists participated. On average, participants had 6.9 years (95% confidence interval: 3.1–10.7,  $n = 27$ ) of clinical experience working in ED settings and devoted approximately 39.3% (95% confidence interval: 23.8–54.8,  $n = 27$ ) of their time to treating individuals with EDs. Participants reported that physical therapy interventions have a diverse range of benefits on the physical, mental and disease-specific factors (e.g. binges) in people with EDs. The key role of physical therapists includes improving body awareness, especially during physical activity combined with psycho-education about healthy doses of physical activity. Physical therapists were able to identify a range of barriers and facilitators to physical activity in people with EDs. **Discussion.** This paper provides a first step towards understanding the role and value of physical therapists working with individuals with EDs. Copyright © 2015 John Wiley & Sons, Ltd.

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## Keywords

exercise; mental health; physiotherapy; rehabilitation services

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## Introduction

Eating disorders (EDs), such as anorexia nervosa (AN), bulimia nervosa (BN), binge ED (BED), constitute a group of disorders involving disturbed body image coupled with eating and/or weight loss behaviours (American Psychiatric Association, 2013) that cause severe distress and impairment to quality of life (Winkler *et al.*, 2014). In the general population, EDs have a lifetime prevalence of roughly 0.6% for AN, 1% for BN and 3% for BED (Jacobi *et al.*, 2004; Hudson *et al.*, 2007).

While AN is characterized by excessive dieting and hyperactivity that lead to severe weight loss with a pathological fear of excessive weight gain, the core feature of BN and BED is loss of control over the eating behaviour resulting in binge eating (American Psychiatric Association, 2013). Binge eating involves taking in an abnormally large quantity of food in a discrete time and feeling a lack of control during the episode (American Psychiatric Association, 2013). BN differs from BED by compensatory behaviours that occur after a binge and might include vomiting, laxative or other diet medication use, fasting or excessive exercise (American Psychiatric Association, 2013).

All EDs are associated with significant impairment of physical health and psychosocial functioning and carry increased risk of death (Treasure *et al.*, 2010). Physical abnormalities seen in AN seem to be largely secondary to the disturbed eating habits and their compromised nutritional state and include decreased bone integrity (osteopenia leading to osteoporosis), weak proximal muscles, bradycardia, gastrointestinal symptoms, dizziness and syncope and amenorrhea (Treasure *et al.*, 2010). The physical abnormalities seen in BN are usually minor unless vomiting or laxative or diuretic misuse is frequent, in which case there is a risk of electrolyte disturbance. The physical consequences of BED are largely, however not solely (Hudson *et al.*, 2010), due to a co-morbid obesity and a sedentary lifestyle (Vancampfort *et al.*, 2014). All EDs also present with psychiatric co-morbidity in a number of important areas, including depression, bipolar disorder, anxiety disorders (obsessive-compulsive disorder, panic disorder, social anxiety disorder, other phobias and post-traumatic stress disorder) and substance abuse (Fairburn, 2003; O'Brien and Vincent, 2003; Javaras *et al.*, 2008).

Because of co-morbid physical and psychiatric conditions, ED have been characterized as one of the most

difficult psychiatric conditions to treat (Crow and Peterson, 2009). A small body of evidence currently exists for the efficacy of cognitive behavioural therapy as an effective form of psychotherapy (Hay *et al.*, 2009; Vocks *et al.*, 2010; Hartmann *et al.*, 2011). Evidence from pharmacological trials is identified as being in early stages of development (Reas and Grilo, 2014) and remains limited (Mitchell *et al.*, 2013). However, some preliminary evidence supports the use of selective serotonin reuptake inhibitors in adults with BN (Greetfeld *et al.*, 2012). In general, it might be stated that current treatments are only moderately successful, indicating that an advancement of psychological and physical treatments is urgently needed.

Because a distorted body image (identified as negative perceptions of one's weight, size or shape and the inability to integrate and perceive realistic bodily sensations; Catalán-Matamoros *et al.*, 2011) and unregulated or unhealthy physical activity (identified as any bodily movement generated by the skeletal muscles that requires energy expenditure; Caspersen *et al.*, 1985) behaviour are central in the course of all EDs and patients perceive improving self-esteem and body experience as core constructs that influence their treatment (Vanderlinden *et al.*, 2007), physical therapy (focusing on physical activity behaviour and body experience and insight) might be a treatment modality that has great potential. A recent systematic review including eight randomized controlled trials (RCTs) and involving 213 patients (age range: 16–36 years) (Vancampfort *et al.*, 2013) concluded that aerobic and resistance training results in significantly increased muscle strength, body mass index (BMI) and body fat percentage in patients with AN. In addition, aerobic exercise, yoga, massage and basic body awareness therapy (BBAT), the latter focusing on movement experiences and insight (Hedlund and Gyllensten, 2010; Thörnberg and Mattsson, 2010), significantly lowered scores of eating pathology and depressive symptoms in patients with AN and BN. To date, the evidence on physical therapy in persons with BED is limited to three RCTs involving 211 female community patients (age range: 25–63 years) (Vancampfort *et al.*, 2014). The limited literature on physical therapy in persons with BED, however, clearly demonstrates that aerobic or yoga exercises reduce the number of binges and BMI of BED patients. Aerobic exercise combined with Cognitive Behavioural Therapy (CBT) appears to be more effective in reducing BMI and depressive symptoms than

CBT alone. A pilot RCT also found that BBAT may improve eating attitude and consequently help reduce the severity level of the EDs (Catalán-Matamoros *et al.*, 2011).

The current body of evidence indicates that physical therapy interventions in EDs demonstrate great promise as a strategy to reduce depressive symptoms and improve the physical health of those affected. However, the implementation of physical therapy interventions in the multidisciplinary treatment of EDs is still in its infancy as demonstrated by the recent review papers (Probst *et al.*, 2013; Vancampfort, Vanderlinden *et al.*, 2013; Vancampfort *et al.*, 2014). Given the need for the development of non-pharmacological interventions and the promising nature of physical therapy in EDs, an investigation of the practice of international experts is required to inform clinical practice for the care of those with EDs. Thus, this study aimed to investigate the current practices and perceived benefits of physical therapy among international experts in the field of EDs.

## Methods

### Design

We employed a cross-sectional online pilot survey to ascertain the clinical experiences of physical therapy experts in the treatment of people with EDs.

### Participants

In order to locate physical therapists working with individuals with mental illness, we contacted all members of the International Organization of Physical Therapists in Mental Health (IOPTMH) a subgroup of the World Confederation for Physical Therapy (approximately  $n=480$ ). This included a range of countries (39 countries across six continents) and included practitioners, educators and researchers in the field of mental health (Probst, 2012). We specifically sought the experiences of mental health physical therapists working with ED patients (exact eligible  $n$ =unknown). Ethical approval was gained from the primary author's institution (REF: RG\_14-012).

### The questionnaire

The questions for the cross-sectional survey were developed by experts (all authors) in physical activity prescription in EDs and with reference to the literature (Vanderlinden *et al.*, 2012; Probst *et al.*, 2013; Vancampfort *et al.*, 2013; Vancampfort and Probst,

2014; Vancampfort *et al.*, 2014). The survey considered demographic information (nationality, age, experience, training and number of patients seen each month) along with four questions (four open ended, one with an added Likert scale response), which included the following: 1) what interventions the physical therapists currently used; 2) what outcome measures were used for assessment; 3) should physical activity have a role in treatment, considered as a Likert scale response and open-ended response; and 4) what the barriers or facilitators to physical activity and exercise were for each condition.

A small pilot study with a number ( $n=3$ ) of physical therapists to assess face validity and ease of use was performed. No changes in the questionnaire were needed.

### Protocol

The survey was sent out in English, as this is the official language of the World Confederation for Physical Therapy (WCPT). Three emails (initial invitation and reminder emails) were sent to all members of the IOPTMH between the fifth and the 29th of April 2013. The emails contained a link to a secure online survey tool (QUALTRICS available at <http://www.qualtrics.com/>). Participants were informed about the purposes of the study and were told that filling in a questionnaire represented informed consent.

### Analysis

Descriptive statistics, including frequencies, were used. Verbatim quotes from participants were entered into excel and thematically analysed (Soundy *et al.*, 2014). Questions 1, 2 and 3 (open-ended question) were undertaken using a quantitative content analysis (numbers used to qualify the interventions or outcome measures used), while questions 3 (closed ended question), 4 and 5 were undertaken using a traditional qualitative analysis. An audit trail is available from the corresponding author upon request. Indicative verbatim quotations were used to illustrate the themes and subsequent categories, and on each occasion, the physical therapists' study number (P), age, gender and country are also reported.

## Results

### Respondent's demographics

Twenty-eight physical therapists ( $42.0 \pm 12.6$  years, 19 men) from three continents (Europe  $n=23$ , Africa

$n = 4$ , North America  $n = 1$ ) completed the survey. The educational status of individuals included 16 with BSc level qualifications, six with master's level qualifications and six with PhD level qualifications. Sixteen participants primarily described their role as clinicians, four were researchers (all researchers had previous clinical experience in ED or were currently engaged in clinical practice), two were clinical educators, and six had a combination of these roles.

### Clinical experience of respondents

Overall, the physical therapists had over 10 years on average experience in mental health settings ( $11.4 \pm 8.4$  years, 95% confidence interval [CI]: 8.3–14.6,  $n = 27$ ) and 6.9 years (95% CI: 3.1–10.7,  $n = 27$ ) experience working in ED settings. The mean percentage of time estimated working in different settings was as follows: inpatients (46.3%, 95% CI: 30.8–61.8,  $n = 23$ ), outpatients (37.8%, 95% CI: 23.1–52.6,  $n = 27$ ) and community (4.1%, 95% CI: –0.1 to 8.3,  $n = 22$ ). Within their job role, the mean percentage of time working with patients who have an ED was 39.3% (95% CI: 23.8–54.8,  $n = 27$ ). Physical therapists most often worked with individuals with AN (73.9%,  $n = 17$  out of  $n = 23$ ), followed by BED (26.0%,  $n = 6$  out of  $n = 23$ ). On average, the therapist treated 5.6 ( $n = 17$ , 95% CI: 3.2–8.1) patients per month with AN, 3.2 ( $n = 14$ , 95% CI: 1.5–5.0) patients per month with BN and 2.9 ( $n = 12$ , 95% CI: 1.0–4.8) patients per month with BED.

### What interventions do mental health physical therapists use with people suffering from eating disorders?

Eight physical therapists provided details regarding the interventions that they use when working with people with EDs. Broadly, the interventions were split into four types of intervention:

1. Physical, functional and manual interventions and the use of movement or exercise (exercise differs from movement in being a more planned and structured form of physical activity; Caspersen *et al.*, 1985) therapy. Physical therapists also identified the need for other interventions that could assist in pain management ( $n = 2$ ) or exercises to support or aid breathing more freely ( $n = 1$ ). Finally, traditional manual techniques (e.g. massage, mobilisations or manipulations) that were identified when BMI was very low included working with joints, heart and breathing.
2. Psychotherapeutic-related interventions including relaxation techniques ( $n = 3$ ) as well as mindfulness (bringing an individual's attention into the present moment in a non-judgemental way) ( $n = 1$ ) and rational-emotive therapy (an action-orientated approach based on CBT that considers events that lead to behaviour or emotional disturbance or upset) ( $n = 1$ ).
3. Education provided included information about how physical activity should be adjusted ( $n = 2$ ), supporting the person to become more aware of and re-interpreting body awareness (greater insight and/or becoming more aware of bodily signals), exercise and movement experience.
4. Seven physical therapists specifically identified the use of BBAT as a specific physical therapy intervention. Other informants provided explanations of why this orientation was important which included *changing the experience of exercise and movement*. For instance, one physical therapist stated:
 

*'To start a contact that for some people can continue also in day care and more of body awareness to find new ways of respecting oneself and to find ways of finding joy in moving and exercising and not as a way of keeping bodyweight down or reducing anxiety level.'* (P3 F 53 EU)

### What outcome measures are used by mental health physical therapists with people with eating disorders?

A total of eight physical therapists provided details of the outcome measures they used, and only two outcome measures specifically related to EDs were identified by more than one physical therapist. Overall, five physical therapists utilized the Body Awareness Rating Scale (Friis *et al.*, 1989), and two physical therapists identified the Body Attitude Test (Probst *et al.*, 1995). Finally, three further scales were identified by one physical therapist. These included the Eating Disorders Inventory (Garner *et al.*, 2006), the Eating Attitudes Test (Pelaez-Fernandez *et al.*, 2014) and the Binge Eating Scale (Gormally *et al.*, 1982).

### Is it important that physical therapists are involved in delivering physical activity?

Twenty-three physical therapists responded to question that asked if physical therapists have a role in promoting physical activity. Of these responses, most (73.3%, 17 out of 23) strongly agreed that physical therapists should have a central role in delivering physical activity in persons suffering from EDs while the remainder agreed (21.7%, five out of 23).

### What is the role and value of physical activity for persons suffering from eating disorders?

Eight physical therapists provided information on the role and value of physical activity in EDs, and multiple benefits across a broad range of domains of health were identified. This is exemplified by one physical therapist who stated that physical therapy has a role in the following:

*'improving quality of life, reducing risk for physical co-morbidities, coping with binges, working around body experiences and self-esteem, increasing physical activity in daily life.'* (P2 M 35 EU)

Overall, the benefits reported were developed in two major themes. The first was the psychological and behavioural benefits of engaging in physical activity within physical therapy. Within this theme, five sub-themes became apparent including (1) increased quality of life and a decreased psychological morbidity. Specifically, participants stated that an increased quality of life, with improved mental health (e.g. greater body image, less body dissatisfaction and improved self-esteem), was an essential benefit. For example, one physical therapist stated that physical activity had a role in 'strengthening the self-esteem through a bodily approach' (P4 F 41 EU), and another stated that physical activity 'improves body image and body dissatisfaction' (P7 M 34 EU). Within the second sub-theme (2), participants stated the importance of valuing movement, in that individuals were able to develop enjoyment from engaging/involving in the movement experiences. For instance, one physical therapist stated that patients with EDs often 'find joy and pleasure in moving' (meaning, by being in it, exploring and experiencing the movement) (P3 F 53 EU). Across the third sub-theme (3), participants identified a decrease in illness

symptoms and normalizing eating behaviour and hunger as a result of engaging in physical activity. For instance, one physical therapist stated that health physical activity or exercise engagement can actually result in 'decreasing binge behaviour' (P7 M 34 EU). (4) The fourth sub-theme identified an improved sense of body awareness and greater control and understanding of healthy exercise behaviour. One physical therapist summarized that physical therapy can help:

*'To find a balanced way to be in physical activity, rather than letting the activity be driven by the eating disorder.'* (P4 F 41 EU)

Thus, two key aspects to this sub-theme existed: firstly, individuals with EDs require a degree of re-education about healthy engagement in physical activity and exercise. This point is exemplified by one physical therapist who stated that

*'We guide the patients in monitoring their exercise, guide, / and /or join them when trying out healthy exercise, evaluate the experiences, and learn whether the exercise has an impact on the eating disorder.'* (P5 F 36 EU)

The second key aspect was that participants stated that individuals with EDs were required to change the view they had of their body or have an increased body awareness, which in turn meant understanding who they were (re-establishing a positive identity) and how they should feel when exercising/moving in a more healthy way. For instance, one physical therapist stated that through a physical therapy-based interventions,

*'We help the patients get a sense of who they are, what they need and what they feel.'* (P1 F 63 EU)

Within the final sub-theme (5), therapists identified specific improvement in an individual's physiological condition and markers as a benefit from engaging in physical activity. For instance, one physical therapist stated that physical activity results in

*'Increased muscle mass, increased BDNF, increased serotonin, increased endorphins, less hyperactivity.'* (P9 F 26 A)

In summary, it is clear that participants view physical therapy and physical activity as valuable in improving



body awareness and psychological well-being in individuals with EDs.

### What are the barriers and facilitators to physical activity in people with eating disorders?

Again, eight physical therapists (same individuals as identified earlier) identified a range of barriers and facilitators to physical activity. A full table of barriers and facilitators within each ED is provided in Table 1. The general facilitators included the following: 1) the experience of physical activity enabling a sense of control for the individual and their eating and exercise behaviours and 2) improving cognitions and thoughts concerning the body and improving education of the individual. The general barriers included the following: 1) disease symptoms like compulsivity to exercise and the disease-controlling behaviour; 2) a negative body attitude or feelings and emotions related to this; 3) a low self-esteem; 4) feelings of shame; and 5) a lack of self-acceptance.

## Discussion

This research represents the first international survey of its kind, capturing the views and experiences of expert clinicians within the field of physical therapy in EDs.

Physical therapists were able to identify multiple benefits of engaging in physical therapy for individuals with EDs across bio-psychosocial domains. The current results have identified that, currently, few specialist mental health physical therapists are working with patients who have EDs. Thus, it is essential that a better understanding of the role of physical therapists within the multidisciplinary treatment is developed before it can be further promoted to the wider community. International guidelines (National Institute for Clinical Excellence, 2004) recommend that people with EDs should firstly be offered community and outpatient treatment and that inpatient care be used for those who do not respond or who present with high risk. In line with National Institute of Health and Care Excellence (NICE) guidelines, our current results demonstrate that there is a need to promote physical therapy as part of an early intervention and to shift the role of physical therapists to community settings rather than inpatient settings. Moreover, our participants identified that physical therapy can have a range of beneficial effects on the mental and physical health of people with EDs and identified two key objectives for physical therapy. Firstly, physical therapists should consider and work with bodily experiences on different levels including behaviour, perception, awareness and attitudes. For instance, awareness raising of the

**Table 1.** The barriers and facilitators to physical activity across eating disorders identified by physical therapists

Disorder	Facilitators	Barriers
Anorexia nervosa	Psychosocial: change cognitions demonstrating greater or improved awareness of the body. Autonomy, competence or self-efficacy and connectedness with others.  Behavioural and environmental: participation in guided activity from professionals. Facilitated by psycho-education, improved bodily experiences, exploration and reflection on experiences.	Psychosocial: compulsiveness of behaviours, poorly developed functional that affects regulating strategies, a negative body attitude, low self-acceptance and need for perfectionism.  Behavioural and environmental: activities that are undertaken with no contact to emotions or association with the will to become better.
Bulimia	Psychosocial: autonomy, competence or self-efficacy and connectedness with others. Awareness concerning body, emotions and thoughts.  Behavioural and environmental: psycho-education and positive experiences. Participation in guided/graded physical activity from professionals.	Physical: co-morbidities and poor physical condition. Psychosocial: low self-acceptance and compulsivity. Not being able to regulate behaviour internally. Behavioural and environmental: not identified.
Binge eating disorder	Psychosocial: being able to control drives and binges. Awareness of the body, thoughts and emotions. Competence or self-efficacy, connectedness and autonomy.  Behavioural and environmental: graded activity from professionals.	Physical: co-morbidities Psychosocial: shame, low self-esteem, low self-acceptance and low levels of social support.  Behavioural and environmental: no experience of positive behaviour.

current physical condition of the patient's body, acknowledgement and acceptance of changes in body weight and the associated feelings and needs of patients should all be considered. Further, increases in coping with daily demands, greater contact with the body, daily movement and functions, and related feelings and an ability to gain confidence in relationships were pointed out. Physical therapists also identified associated outcome measures, in particular the Body Awareness Rating Scale and the Body Attitude Test. Secondly, the participating physical therapists reported that it is essential that they assist patients with EDs in changing unhealthy physical activity behaviours. Participants identified the importance of empowering individuals to regulate a healthier lifestyle and also recognize the potential of physical activity to provide broader benefits such as improved social identities, belonging and connectedness, as well as increase social confidence (Soundy *et al.*, 2014).

Clear guidance regarding the type of physical therapy intervention (aerobic exercise, resistance training, breathing exercises or body-related interventions) and the optimal dose was, however, not provided by any of the included participants. This is not surprising because only a limited number of rigorous studies on physical therapy in EDs are available. Further, currently, recommendations from the American College of Sport Medicine (Skrinar and Hutchinson, 2009) focus on severe mental illness in general, rather than defined categories like AN. Until more evidence is available, physical therapists should preferably assess the types of exercises or techniques that would best fit a person's preference. Further to this, the use of objective measurements to assess and document physical activity (e.g. pedometers and accelerometers) may help clinicians in guiding patients to engaging in healthy levels of behaviour. Probably more important for the daily clinical practice is the awareness of facilitators and barriers for physical therapy. Our survey identified that disease symptoms like compulsivity to exercise, a negative body attitude or feelings and emotions related to this, a low self-esteem, feelings of shame and a lack of self-acceptance are considered as important barriers. Future research is needed to guide physical therapists in how to assist patients in coping with these barriers. A very recent study in individuals with BED (Vancampfort *et al.*, 2014) showed that the principles of the self-determination theory (Deci and Ryan, 2000) might facilitate adherence towards physical therapy. It might be hypothesized that

supporting and stimulating feelings of competence (i.e. feeling effective to attain desired outcomes) will be facilitated by the nature of the physical therapy programme. Feelings of competence may be facilitated through the promotion of environments in which self-referenced standards and indicators of improvement are adopted as opposed to competitive situations in which evaluated outcomes are dependent upon the performance or bodily appearance of others (Springer *et al.*, 2013). By providing individual, concrete and realistic weekly schemes, patients with EDs will likely experience individual successes. Feelings of control might be facilitated as well by providing autonomy (i.e. experiencing a sense of psychological freedom when engaging in physical therapy). In practice, autonomy might be achieved by providing choices to patients, supporting their initiatives, offering relevant personal information for changing behaviour and using autonomy supportive language (e.g. 'may' and 'could' rather than 'should' and 'must'), which might be facilitated by using the motivational interviewing techniques (Miller and Rollnick, 2002). In agreement with reports from the participating physical therapists in the current study, also Probst *et al.* (2013) very recently stated that psycho-education regarding bodily functions might be an important issue. For example, it is important to explain the functions of the respiratory system during breathing exercises. The therapist's role should consist of thoroughly explaining that weight gain is not synonymous with feeling fat but with health, attractiveness and expressiveness. Other topics for psycho-education are basic anatomy/physiology, the risk of osteoporosis, the negative impact of stress and anxiety on the body, stress and anxiety coping strategies and the influences of the media on sociocultural ideals. In addition, education could include more traditional self-management techniques and exercises. Whenever possible, physical therapists should design their exercises in such a way that patients can also try these exercises outside the therapy sessions in daily life situations, on their own or with a partner. This can be successfully performed with breathing exercises, relaxation training, body awareness exercises and stress-coping strategies. It is important that patients assume responsibility for their therapy. Finally, future research should explore the role of interpersonal relatedness (e.g. being socially connected and feeling a sense of belonging with others) in facilitating physical

therapy interventions (Soundy *et al.*, 2014). This can be achieved by stimulating the participants to involve meaningful others in the therapy. It may also be suggested that physical therapy sessions in a group setting provide a venue for social support from other patients, thereby increasing participation. Being able to test out new skills with trusted others is also an important part of building competence (Deci and Ryan, 2000; Deci and Ryan, 2002).

The current findings should be considered in the light of some methodological limitations. For example, there was a small response rate (in the open-ended questions partly because of not giving a written response), and the physical therapists that answered the open-ended questions may have had greater training than most physical therapists working in mental health setting. Moreover, only members of the IOPTMH were invited to take part (who are more likely to be experts), but some physical therapists may have expertise in ED but may not be part of the IOPTMH. For these reasons and the relatively small numbers of respondents, the current results should be considered as a preliminary. In addition, the results may be biased because physical therapists within particular countries that advocate particular approaches (e.g. body awareness therapy) or outcome measures may have been over-represented. Because data from particular clinics or countries are not available, it is hard to identify to what extent this occurred. The results also may be biased by participant demographics (e.g. more men in the sample) or by the structure of the survey. However, as mentioned, this might be representative for the limited number of physical therapists currently involved in this field. A higher response rate would require a funded study that can access mental health departments directly and identify all related professional groups (physiologist, nurses, exercise specialists or physiotherapists) within individual countries. Secondly, the thematic analysis may have been influenced by the primary author previous experience of coding specialist mental health physical therapists responses (e.g. Soundy *et al.*, 2014) or affected by the open coding strategy used (as opposed to using a framework or a priori approach).

Although with limitations, the current study clearly demonstrates that physical therapy can have a wide and diverse range of benefits on the health of people with EDs. In addition, physical therapists are well placed to deliver and facilitate a diverse range of

physical therapy interventions in EDs given the projected role and insight into the barriers and facilitators. Finally, this study does also illustrate that few physical therapists are currently working in this relatively new area; therefore, rehabilitation clinicians will benefit from the findings of this research.

## Summary

Physical therapists in the current study identified three main functions of physiotherapeutic treatment: 1) to provide movement or physical activity, which they considered a primary role; 2) to provide psychotherapeutic intervention; and 3) to provide educational advice to help promote healthy behaviours. The most common outcome measures included the Body Awareness Rating Scale and the Body Attitude Test, but we suspect that this may be because of a particularly strong response rate from Scandinavia where the BBAT approach is particularly prominent. Physical therapists identified psychological benefits from therapy; the main benefits included an increase in self-esteem and body image. They also identified the importance of helping patients change the view they had about physical activity and their body image.

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